

# **Final Mandatory Greenhouse Gases Reporting Rule**

## **Overview**



# Agenda



- Outline
  - Background
  - Purpose of Rule
  - Key Elements of Rule
  - Assessing Applicability
  - Special Provisions for 2010
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# Background



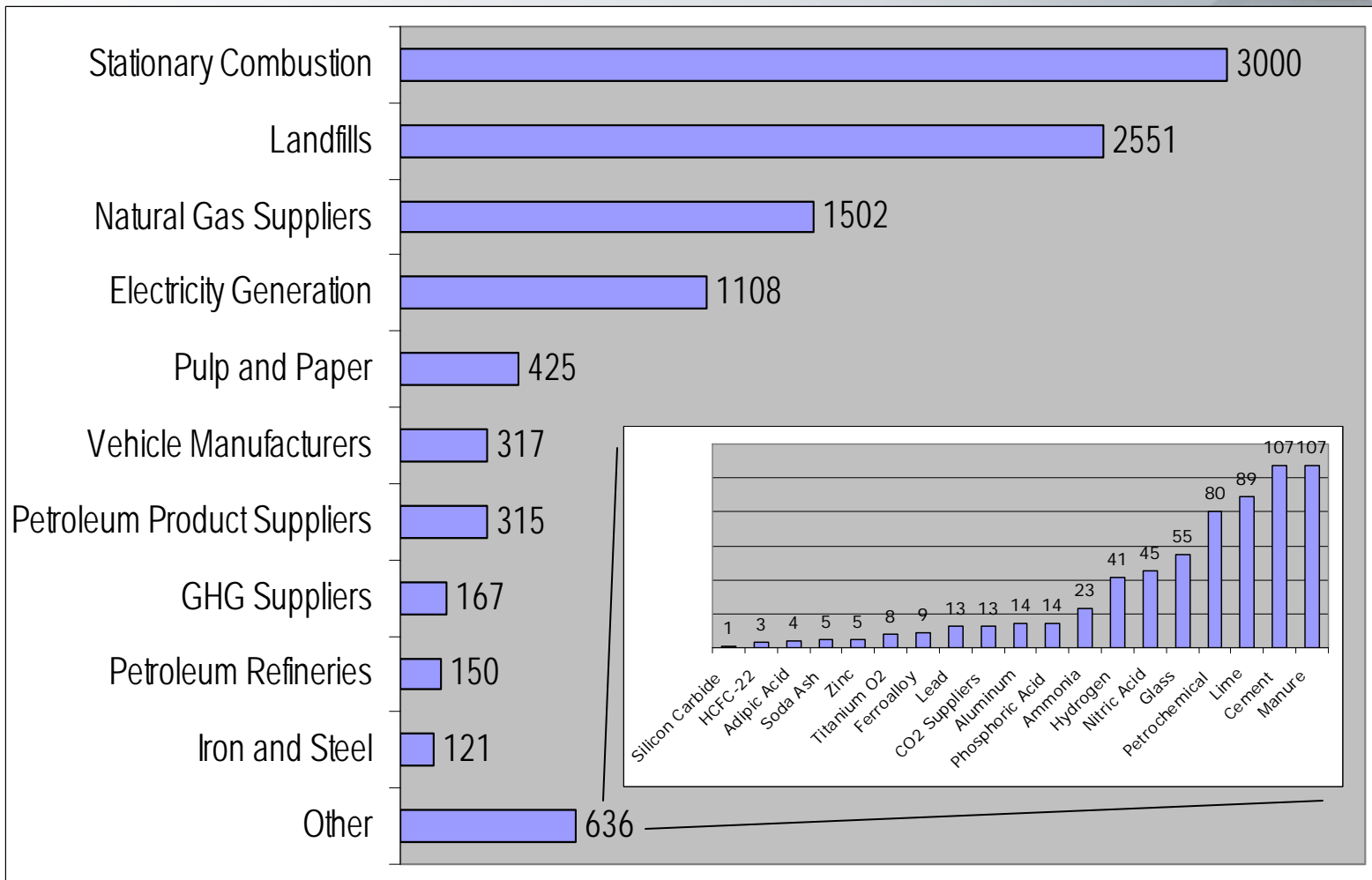
- Directed by Congress in 2008 Appropriations Act
- Proposal signed March 10, 2009
- Public Comment Period (April 10 – June 10, 2009)
- Final rule signed September 22, 2009
- Published in Federal Register October 30, 2009

# Purpose of the Rule



- Requires reporting of greenhouse gas (GHG) emissions from all sectors of the economy in the United States
- Provides accurate and timely data to inform future climate change policies and programs
- Does not require control of GHG

# About 10,000 U.S. Facilities Covered



# Key Elements of the Rule



- Annual reporting of GHG by:
  - 25 source categories
  - 5 types of suppliers of fuel and industrial GHG
  - Motor vehicle and engine suppliers (except light duty sector)
- 25,000 metric tons CO<sub>2</sub>e per year reporting threshold for most sources; capacity-based thresholds where feasible
- Monitoring begins January 1, 2010; first reports due March 31, 2011
- Direct reporting to EPA electronically
- EPA verification of emissions data

# How much is 25,000 MTCO<sub>2</sub>e?



- Equivalent to:
  - Annual greenhouse gas emissions from the energy use of approximately 2,300 homes
  - Annual greenhouse gas emissions from approximately 4,600 passenger vehicles
- Majority of commercial building owners not likely to meet reporting threshold
- Applicability Tool available online to help facilities assess whether they are required to report

# What GHGs are Reported?



- $\text{CO}_2$
- $\text{CH}_4$  (methane)
- $\text{N}_2\text{O}$  (nitrous oxide)
- Fluorinated GHGs
  - HFCs (hydrofluorocarbons)
  - PFCs (perfluorocarbons)
  - $\text{SF}_6$  (sulfur hexafluoride)
  - Other fluorinated gases



# Who Reports?



- Facility based reporting for all source categories for which there are methods
- Limited exceptions for a few reporters (e.g., fuel importers, vehicle and engine manufacturers outside of the light-duty sector)

# What is a facility?



A facility is defined as...

- Physical property, plant, building, structure, source, or stationary equipment located on one or more contiguous or adjacent properties;
- in actual physical contact or separated solely by public roadway or other public right of way;
- under common ownership or common control; and
- that emit or may emit GHGs.

Military installations may be classified as more than one facility.

# How Does a Facility Assess Applicability?



- A facility can have multiple source categories.
- A facility must evaluate each source category separately to assess applicability to the rule.
  - “All-in” source categories: All of the facilities that have an “all-in” source category within their boundaries are subject to the rule.
  - Threshold categories: Aggregate these categories to meet the 25,000 metric tons CO<sub>2</sub>e per year reporting threshold
- If rule applies, report emissions for all source categories for which methods are provided in the rule.

# All-in Source Categories



Electricity Generation if report CO<sub>2</sub>  
year-round through Part 75

Adipic Acid Production

Aluminum Production

Ammonia Manufacturing

Cement Production

HCFC-22 Production

HFC-23 Destruction Processes that  
are not collocated with a HCFC-22 production  
facility and that destroy more than 2.14  
metric tons of HFC-23 per year

Lime Manufacturing

Nitric Acid Production

Petrochemical Production

Petroleum Refineries

Phosphoric Acid Production

Silicon Carbide Production

Soda Ash Production

Titanium Dioxide Production

Municipal Solid Waste Landfills  
that generate CH<sub>4</sub> equivalent to 25,000  
metric tons CO<sub>2</sub>e or more per year

Manure Management Systems  
that emit 25,000 metric tons CO<sub>2</sub>e or more  
per year

[Note: EPA will not be implementing subpart JJ of  
the Mandatory GHG Reporting Rule using funds  
provided in its FY2010 appropriations due to a  
Congressional restriction prohibiting the  
expenditure of funds for this purpose.]

\*Source categories are defined in each subpart.

# Threshold Source Categories



Stationary Combustion  
Units

Ferroalloy Production

Glass Production

Hydrogen Production

Iron and Steel  
Production

Lead Production

Pulp and Paper  
Manufacturing

Zinc Production

Note: Report if emissions are  $\geq 25,000$  metric tons CO<sub>2</sub>e per year from all source categories, combustion units, and miscellaneous use of carbonates.

# Source Categories Not Included in Final Rule



**EPA plans to further review public comments and other information before deciding on these subparts:**

- Electronics manufacturing
- Ethanol production
- Fluorinated GHG production
- Food processing
- Magnesium production
- Oil and natural gas systems
- Sulfur hexafluoride (SF<sub>6</sub>) from electrical equipment
- Underground coal mines
- Industrial landfills
- Wastewater treatment
- Suppliers of coal
- Geologic sequestration

*Facilities with these source categories could be covered by the rule based on GHG emissions from stationary fuel combustion sources.*

# What Suppliers Are Covered?



- All producers of:
  - Petroleum products
  - Coal-based liquids
  - Industrial GHGs (F-GHG and N<sub>2</sub>O)
  - CO<sub>2</sub>
- Exporters of 25,000 metric tons CO<sub>2</sub>e per year
- Importers of 25,000 metric tons CO<sub>2</sub>e per year
- Natural gas and natural gas liquids
  - All fractionators
  - All local gas distribution companies

# What do Suppliers Report?



- Quantity of each product introduced into the economy (e.g., barrels, tons)
- GHG emissions associated with:
  - 100% oxidation of fuels (CO<sub>2</sub>e)
  - 100% release of gases (CO<sub>2</sub>e)



# How are Emissions Monitored?



## General Approach:

- **Continuous emission monitoring systems (CEMS)**
  - Required if already used (e.g., NSPS, Acid Rain Program) and meet specified criteria
  - Optional for other sources
- **Source category-specific GHG calculation methods**
  - Monitor process parameters, fuel use
  - Calculate GHG using equations in applicable subparts
  - Example approaches (varies by source category)
    - Mass balance calculation
    - Site-specific emission factors
    - Default emission factors

# Monitoring Plan



- Identifies responsibilities (i.e., job titles) for data collection
- Explains processes and methods used for data collection
- Describes QA/QC procedures for monitors
- May rely on references to existing corporate documents (e.g., standard operating procedures)
- Not a reporting requirement, but must be prepared by April 1, 2010

# **Special Provisions for 2010: Best Available Monitoring Methods**



- Best available monitoring methods may be used during January 1, 2010 through March 31, 2010
  - Use emission estimation equations provided in the rule
  - Obtain equation inputs using best available monitoring method (e.g., current monitoring methods, engineering calculations, company data)
- Must begin following all applicable monitoring and QA/QC requirements on April 1, 2010
- If extension is needed (equipment purchase, process unit shutdown etc.), facility may request an extension.
  - Extension request must be submitted to EPA no later than 30 days after effective date of the rule.
  - No extension will be granted beyond December 31, 2010

# **Special Provisions for 2010: Abbreviated Emissions Report**



- Available to facilities with stationary combustion sources only
- Can report total facility emissions only (not unit level)
- Can use any calculation methodology in Subpart C

# When Can I Stop Annual Reporting?



- If annual reports demonstrate CO<sub>2</sub>e <25,000 metric tons/yr for 5 consecutive years.
- If annual reports demonstrate CO<sub>2</sub>e <15,000 metric tons/yr for 3 consecutive years.
- If you shut down all processes/units/supply operations covered by the rule.
- Must notify EPA
- However, if threshold is subsequently triggered, must start reporting again

# What are the Requirements for Mobile Sources?



- Emissions from mobile sources will be captured by reports from fuel suppliers and manufacturers of vehicles and engines (outside of the light-duty sector).
- No requirements for fleet operators or state and local governments.
- Manufacturers of vehicles and engines—including heavy-duty trucks, motorcycles, and nonroad engines—will report CO<sub>2</sub> starting with model year 2011 and other GHGs in subsequent model years.

# How Will Emissions Be Verified?



- Self certification
  - Designated representative certifies and submits report
  - Rule allows one designated representative for each facility and supplier
- EPA verification
  - Reports submitted through an electronic system
  - Built-in calculation and completeness checks for reporters
  - Additional EPA electronic QA and consistency checks
  - Site-specific and on-site audits

# Electronic Data Reporting System



- Electronic format and system under development
- Web-based system
  - Will guide reporters through data entry and submission
  - Built-in emissions calculations
- Mechanism to submit file directly using standard format (e.g., XML)
- Continued stakeholder input during system development
- Outreach, training, and hotline to assist reporters using the system



# **Confidential Business Information (CBI)**



- EPA will protect any information claimed as CBI in accordance with regulations in 40 CFR Part 2, subpart B
- In general, emissions data collected under CAA sections 114 and 208 cannot be considered CBI
- EPA will undertake a separate notice and comment process next year on CBI status of data collected.

# Relationship to State and Regional Programs



- Rule does not preempt states from regulating or requiring reporting of GHGs.
  - EPA rule is a limited action developed in response to a specific request from Congress and is narrower in focus than many existing State programs that are coupled with reduction programs
- No state delegation
- Reporting entities will report directly to EPA
  - To reduce reporting burden, EPA staff is working with the Climate Registry and the Exchange Network on a data exchange standard
  - EPA is committed to working with state and regional programs to provide timely access to verified emissions data, establish mechanisms to share data efficiently, and harmonize data systems to the extent possible

# Major Changes from Proposal



- **Applicability.** Reduced the number of source and supply categories that facilities and suppliers must report under this final rule.
- **Exiting the Program.** Added a mechanism for facilities and suppliers to cease annual reporting by reducing their GHG emissions.
- **Measuring Devices.** Added a provision to allow use of best available monitoring methods in lieu of the required monitoring methods for January - March 2010. Facilities can request a date extension beyond March 2010, but EPA will not approve any requests for an extension beyond 2010.
- **Monitoring Equipment.** Added monitoring options, changed monitoring locations, or allowed engineering calculations to reduce the need for installing new monitors.
- **Sampling Frequency.** Reduced the required frequency for sampling and analysis.
- **Exemption.** Excluded R&D activities from reporting.

# Major Changes from Proposal (continued)



- **Quality Assurance.** Added calibration requirements for flow meters and other monitoring devices including a five percent accuracy specification.
- **Report Revision.** Added provision to require submittal of revised annual GHG reports if needed to correct errors.
- **Records Retention.** Changed the general records retention period from 5 years to 3 years.
- **Verification.** In several subparts, required more data to be reported rather than kept as records to allow EPA to verify reported emissions.
- **Combustion Sources.** Added exemptions for unconventional fuels, flares, hazardous wastes, and emergency equipment. Reduced the need for mass flow monitors for some units or fuels. Allowed more facilities to aggregate reporting of emissions from smaller units rather than report emissions for each individual unit.
- **Manure Management Systems.** Added an animal population threshold to reduce the burden of determining applicability. Reduced the monitoring requirements. [EPA will not be implementing the manure management rule due to a Congressional restriction prohibiting expenditure of funds for this purpose.]

# Technical Assistance



- On-line applicability tool: Assists potential reporters in assessing whether they are required to report
- Technical assistance materials (e.g., Information Sheets, Monitoring Checklists)
- Trainings and webinars
- Other materials later
- RSS available to announce new outreach materials

For complete list of materials and training schedule, see:  
[www.epa.gov/climatechange/emissions/ghgrulemaking.html](http://www.epa.gov/climatechange/emissions/ghgrulemaking.html)

# Additional Information



- [www.epa.gov/climatechange/emissions/ghgrulemaking.html](http://www.epa.gov/climatechange/emissions/ghgrulemaking.html)
  - Preamble and rule
  - Technical background documents on source categories
  - Comment response documents
  - Link to rulemaking docket
  - Technical assistance materials
- Email: [GHGMRR@epa.gov](mailto:GHGMRR@epa.gov)



**Questions?**